



Program Director

Catherine is the founding Director of the Centre for Bioengineering and Biotechnology at the University of Waterloo. In this role she works with 150 researchers to progress their science and move their technology into actual use. Her work has significantly increased the research funding and academic environment for researchers and students at the University of Waterloo. Her own research, in human factors engineering, explores how people work with new technologies, and develops more effective designs. Catherine has published over 250 papers in her field, 7 books, and graduated nearly 60 graduate students, 46% of which have been women. She is active in her scientific community, a leader at the university, and has participated in many different roles in government science funding. She has won awards for research, teaching and graduate student supervision from the University of Waterloo.



Program Coordinator

A chemical engineer and specialist in nanotechnology and biotechnology, Dr. Hamilton has been working as a postdoctoral research fellow, leading several industry collaborative research projects in Biomathematics, Systems design, and Biomedical engineering at the University of Waterloo. Her research interests are biomedical devices, drug delivery systems, and biocompatibility of biomaterials. She has a great passion for organizing projects through effective communication, team building, detail planning, and bringing new ideas.



Training Program Developer and Co-applicant

Dr. Maud Gorbet *Associate Professor, Systems Design Engineering, University of Waterloo.* Dr. Gorbet is a leading expert in biological-technological interactions and biocompatibility. She holds personal and collaborative experience in launching biomedical companies. Through her position as Academic Director of the Biomedical Engineering undergraduate program, Dr. Gorbet has experience in trainee program development and management. She has contributed to the design of the international summer school and will teach multiple program courses.



Training Program Developer and Co-applicant

Dr. Thomas Willett *Assistant Professor, Department of Systems Design Engineering, University of Waterloo.* Dr. Willett will contribute expertise in tissue and composite biomaterial mechanics. He has multiple clinical connections at Mt. Sinai Hospital and can support students who wish to collaborate with clinicians. Dr. Willett has a significant contribution in developing training module in the CREATE program.



Co-Applicant

Dr. Karim Karim *Professor, Department of Electrical and Computer Engineering, University of Waterloo.* As an expert on medical imaging devices and both micro- and macro-electronics, Dr. Karim will supervise trainees interested in imaging technology. He will teach the Design for Adoption course. Karim has extensive management and commercialization experience as Director of the Silicon Thin Film Applied Research Laboratory and founder of KA Imaging. He has many connections in the imaging industry. He has experience in the development of trainees through a previous CREATE grant.



Co-Applicant

Dr. Alex Wong *Associate Professor, Department of Systems Design Engineering, University of Waterloo, Canada Research Chair in Medical Imaging Systems.* As Director of the Vision and Image Processing Research Group, Dr. Wong is an expert in medical imaging and will supervise students working in this field. He provides a key link to clinical personnel through his work with Sunnybrook Health Sciences Centre. He is a co-founder of the medical artificial intelligence startup Elucid Lab.



Co-Applicant

Dr. Safieddin Safavi-Naeini *Professor, Department of Electrical and Computer Engineering, University of Waterloo, C-COM Industrial Research Chair.* Dr. Safavi-Naeini will provide trainees with access to his state-of-the-art electromagnetic device characterization laboratory (CIARS) and expertise in electromagnetics, energy harvesting and networked devices.



Co-Applicant

Dr. Ning Jiang *Assistant Professor, Department of Systems Design Engineering, University of Waterloo.* Dr. Jiang is an expert in signal processing algorithms and machine intelligence. His research trainees will investigate brain-computer interfaces, prosthetics, and wearable devices.



Co-Applicant

Dr. Clark Dickerson *Professor, Kinesiology, Applied Health Sciences, University of Waterloo, Tier II Canada Research Chair in Shoulder Biomechanics.* Dr. Dickerson will mentor trainees interested in his expertise on shoulder and joint biomechanics and rehabilitation.

Co-Applicant



Dr. Lora Giangregorio *Associate Professor, Department of Kinesiology, University of Waterloo, Schlegel Research Chair in Mobility and Aging.* Dr. Giangregorio is an expert in osteoporosis, exercise and rehabilitation. She brings a wealth of information on clinical trial design and knowledge translation for trainees interested in patient-centred research.

Co-Applicant



Dr. Lyndon Jones *Professor, School of Optometry and Vision Sciences, University of Waterloo, University Research Chair.* As Director of the Centre for Contact Lens Research (CCLR), the largest ocular clinical trial facility, Dr. Jones will provide trainees with extensive exposure to ocular biotechnology and connections to clinical professionals.

Co-Applicant



Dr. Evelyn Yim *Associate Professor, Department of Chemical Engineering, University of Waterloo.* Dr. Yim will share her expertise in Nano-biotechnology, tissue engineering and regenerative medicine with trainees. Her experience as Director of the Regenerative Nanomedicine Lab adds experience in developing biomaterials for surgical applications in collaboration with clinicians.